Knowledge, Skills and Organizational Capabilities for Structural Transformation

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Abstract:

Structural transformation requires raising productivity and achieving competitiveness in increasingly higher-valued activities. This process can be constrained by different types of knowledge gaps. The importance of *codified knowledge* and practical know-how or *skills* are well recognized. But another type of knowledge critically affects the value of both. A society must have firms with the *organizational capabilities* to organize production competitively so that educated and skilled people can be employed profitably. This is a specific type of *collective* knowledge distinct from the codified knowledge and know-how embodied in *individuals*. Without appropriate organizational capabilities, investments in other types of knowledge can fail to achieve adequate returns. The required organizational capabilities can range from basic, intermediate to dynamic, depending on whether firms in the sector are catching up or innovating. Effective learning strategies have to identify and target interdependent knowledge gaps and to do this effectively, they also have to recognize distinct institutional and political economy problems of implementation. The general points are illustrated with reference to the emergence of the garments industry in Bangladesh and the challenges facing its upgrading.

Highlights:

Interdependence between codified knowledge, skills and organizational capabilities

Distinction between basic, intermediate and dynamic organizational capabilities

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Recognizing interdependencies of knowledge gaps and political contexts is important for effective policy

Case of Bangladesh garments industry

1. Introduction

Sustainable structural transformation requires raising productivity across different sectors and achieving competitiveness in progressively higher value-adding sectors. The absence of appropriate levels of knowledge, skills and capabilities can slow down these processes. Most studies of knowledge gaps ignore the interdependencies between different types of knowledge. The economic effects of investments in knowledge have usually been studied by looking at investments in formal education, or years of schooling, as the measure of levels and increases in knowledge (Romer 1986; Lucas 1990). The implicit assumption is that investments in formal education correlate well with the development of all types of knowledge, an assumption that I will argue is very misleading. This assumption is shared in many empirical estimates of knowledge gaps which focus on formal education. For instance, one study estimates that by 2020 the growth of higher-technology sectors is likely to be constrained by a global shortfall of 40 million college-educated workers (13 percent of demand) and the growth of labour-intensive sectors by a shortfall of 45 million workers with secondary education (15 percent of demand). At the same time, there is likely to be an excess supply of 90-95 million unskilled workers (10 percent of this category) (Dobbs, et al. 2012).

I will argue that the problem is much more serious. It is not just a question of churning out workers with secondary or higher levels of education in the right numbers to meet projected demands. These workers also need to have appropriate know-how to be able to operate existing and emerging technologies competitively. Most importantly, well-organized firms have to emerge to employ these persons at high enough levels of productivity to achieve competitiveness. Organizational efficiency is also based on knowledge, but it is knowledge of a different type. It is not knowledge that an individual has, but the knowledge that a large number of individuals have about how to effectively cooperate and coordinate with each other within an organization. Without the latter, investments in codified knowledge and skills may achieve low returns. The absence of any one element can wipe out potential returns to investments in other types of knowledge. In particular, in the absence of capable firms that can employ workers productively, investments in education and skills may only result in the emergence of large numbers of unemployed people with education and skills.

A better understanding of the differences in types of learning and the processes through which they are acquired is therefore essential for the design of effective knowledge policies for supporting structural transformation. First, the pedagogic processes of knowledge acquisition are different for different types of knowledge. As a result the policy challenges can be very different depending on initial conditions and the choice of sectors, which determine the mix of knowledge that has to be acquired. Secondly, the implementation of different learning strategies is likely to require the allocation of policy resources to meet relevant knowledge gaps. If these policy resources are not to be wasted, those receiving support for different types of learning have to achieve desired standards, otherwise support has to be withdrawn or withheld. The feasibility of particular strategies can therefore depend on the configuration of organizational power in that society, its 'political settlement', which can determine how particular policies are likely to be implemented or distorted by powerful interests who are being assisted to support learning (Khan 2013c, 2017). If resources are provided to individuals or organizations who cannot be disciplined despite failing to meet minimum standards, the strategy is likely to fail. An effective learning strategy therefore has to

identify both the relevant knowledge gaps, and the policies that can be effectively implemented to address these gaps given the political settlement in that country.

2. Types of knowledge

Codified knowledge is knowledge that can be communicated in words or symbols in traditional classroom teaching, textbooks, or visual media. Formal educational establishments are the usual delivery mechanism for codified knowledge. However, many types of knowledge are not codifiable or are only partially codifiable. Typically, uncodifiable knowledge is of the 'knowing-how-to' variety, embedded in unconscious and often complex routines that are understood and internalized through learning by doing and practice. These types of knowledge are often equivalently described as *skills*, *know-how* or *tacit knowledge.* The transmission of tacit knowledge requires learning-by-doing rather than, or in addition to, traditional teaching. The distinction between codified and tacit knowledge also involves important pedagogic differences in the processes through which the knowledge is acquired (Polanyi 1967). Finally, *organizational capabilities* require knowledge of how to effectively organize collective activities in particular technologies and social and political contexts in ways that achieve competitiveness. Codified knowledge and skills are types of knowledge that are embodied in individuals. In contrast, organizational capability describes knowledge held by a collective, embedded in interactive routines and practices that are specific to an organization. This knowledge can be very specific to organizations and may not be exactly the same across similar organizations producing similar products or services.

Pedagogically, codified knowledge can be transmitted through formal teaching methods. But generally skills cannot be learnt in this way. Learning how to drive, for example, is almost impossible by attending lectures, reading training manuals or even watching videos. These can help to improve the skills of drivers by providing the background codified knowledge for informed responses in different situations, or to learn traffic rules. But the only effective way of learning to drive is to be in a car with an instructor and learn by doing. Provided the instructor is skilled and the learner puts in appropriate learning effort in responding to mistakes and feedbacks, a series of complex responses and corrective steps gradually become habits and routines. At some point sufficient tacit knowledge will have been mastered to make driving both effective and relatively effortless. Learning carpentry, bricklaying or stitching garments is similar to learning driving. The learning in all these cases is largely about practising the use of techniques to develop routines and habits supporting rapid corrective steps, informed responses to new situations, and so on. The know-how type of knowledge therefore has to be acquired through practical demonstration and participation in activity in apprenticeships, technical and vocational training programmes or on-the-job training. However, some codified knowledge can be a precondition for acquiring some skills and can also accelerate the learning process. Skills are also usually very specific to particular jobs and technologies, and the tacit and context-specific nature of the learning means that it can only be acquired through learning-by-doing in very specific settings (Lall 1992, 2000a, 2000b, 2003).

The third type of knowledge is often ignored in discussions of the knowledge required for achieving productivity growth and competitiveness. The productivity of individuals in a firm depends not only on the codified knowledge and skills of the *individuals* within the firm but also on how efficiently *collective* activities are organized within the firm.

In addition to individual codified knowledge and skills, individuals in an efficient firm have to know how to respond effectively to others in that firm to maximize the quality and quantity of the overall goods and services provided. This requires an organization that can efficiently coordinate activities and incentivize some actions and penalize others to optimize the collective outputs of the organization. I use the term *organizational capability* as a measure of the effectiveness of an organization in coordinating and optimizing these collective activities. Unlike most skills that are based on the tacit knowledge of individuals, the knowledge that achieves a high level of organizational capability of an organization is the *collective* knowledge within the organization to implement *interactive* procedures required for the efficient operation of the team. This knowledge is not about how to operate particular machines or equipment but knowledge of how to interact within the organization given its technologies of production, organizational structure and the characteristics of other individuals in the organization. This knowledge is partly tacit and partly codified, but it is distinct in being collectively-held knowledge. Everyone in an effective organization does not have to have the same organizational knowledge, but all members of an organization need to know their part of the organizational routines to enable the organization to operate optimally (Nelson and Winter 1982; Dosi 1988; Perez and Soete 1988).

The pedagogic processes required to acquire organizational capabilities are different, more complex, and vary by context and type of organization. The enhancement of organizational capabilities may require the acquisition of both codified and tacit knowledge, but it is misleading to reduce this to the other two types of knowledge. The primary difference between learning that is individual and learning that is collective is that in the latter, the individuals have to learn interactive routines collectively. The problem is much simpler if a well-working organization already exists, because here an individual joining the organization simply has to learn how to adapt their responses to the well-working organization. This requires individual learning-by-doing. However, when the organization as a whole has something missing, the collective effort of learning is much more complex and requires collective learning-by-doing, experimentation with routines and adaptation till levels of competitiveness comparable to competitors is achieved. This learning process involves a much higher level of effort and the challenges of organizing it can be significant. The difference between an individual learning individual routines in an already efficient organization and the organization collectively becoming efficient by adopting appropriate routines can be seen most powerfully when an individual from a firm in a developing country with low organizational capabilities migrates to an advanced country and joins a firm with high organizational capabilities. In a very short time, the migrating individual significantly increases their individual productivity by adapting to the routines of the firm with high organizational capabilities. Improving the organizational capability of the developing country firm as a collective is a much more complex collective action process.

A supply of entrepreneurs, managers and supervisors with high levels of codified knowledge and individual know-how is by no means sufficient for the emergence of a competitive firm. If organizational capabilities are absent, their acquisition requires a complex process of collective learning-by-doing. Achieving this usually involves a two-stage learning process. First, managers and supervisors have to acquire an understanding of the internal organization of competitive firms in that sector and this can involve acquiring both the relevant codified knowledge and know-how. Secondly, they have to successfully adapt these routines and systems to local conditions in a

broader collective learning process till the team as a whole understands and can perform effectively within that organizational structure. A team that is able to implement an efficient organizational structure that is potentially competitive by adopting and adapting routines appropriate to that context will have achieved competitive levels of organizational capability.

Organizational capabilities are always relative. If an organization with similar human and physical capital as another improves its productivity by organizing its production more efficiently, it achieves a higher organizational capability. We will see later that very significant differences in productivity can exist across firms using similar technologies and with similar human capital as a result of differences in their organizational capabilities. While many developing country firms can acquire machinery for many basic production activities, and they often have supplies of educated and skilled workers, they lack the capability to bring all this together to produce competitive goods and services. An important factor complicating the acquisition of organizational capabilities is that the most effective organizational design for a firm and its internal operating procedures can be very different across countries, even for the same type of product and across sectors within a country (Whitley 1992). This is not only because technologies differ, but also because social hierarchies, norms of collective work, external governance structures, and so on vary greatly. All of this can affect optimal organizational design and the routines that can be effectively implemented in that context. As a result the simple imitation of formal organizational structures from another context will not necessarily work and collective learning-by-doing is necessary to adapt the functions of particular routines to suit local contexts. This learning process becomes more complex with higher-value products because more complicated technical, quality control and organizational processes are likely to be involved to achieve efficient outcomes. This implies correspondingly more challenging collective organizational learning.

An efficient organizational structure does of course have a formal or codified structure describing its organizational map. This is a formal description of the functions of responsible agents, their sources of information, their lines of management, their incentives and penalties, and their decision-making and authoritative powers. However, knowing a codified organizational map is not sufficient to achieve competitiveness because the real operational efficiency of an organization depends on the *actual* behaviour of its managers and workers. When sufficiently high levels of organizational capabilities have been acquired, most individuals within the organization will be acting automatically in collectively efficient ways most of the time. But administrative staff will also be effectively implementing organizational rules for incentives and penalties to manage occasional free riding, internal conflicts or coordination failures. This optimized collective outcome is therefore based on a mix of codified and tacit knowledge spread across all members of the organization who are behaving according to various routines and interactive processes that they have internalized, together with their knowledge to operate physical systems of coordination, reporting, information collection, incentives and so on that can be embedded in physical infrastructure like software, reporting and monitoring systems. All of this knowledge has to be acquired to raise the organizational capability of a firm to a competitive level and is likely to be a combination of codified and tacit knowledge of intra-organizational interactions that are collectively required to achieve competitiveness (Dosi, et al. 2000).

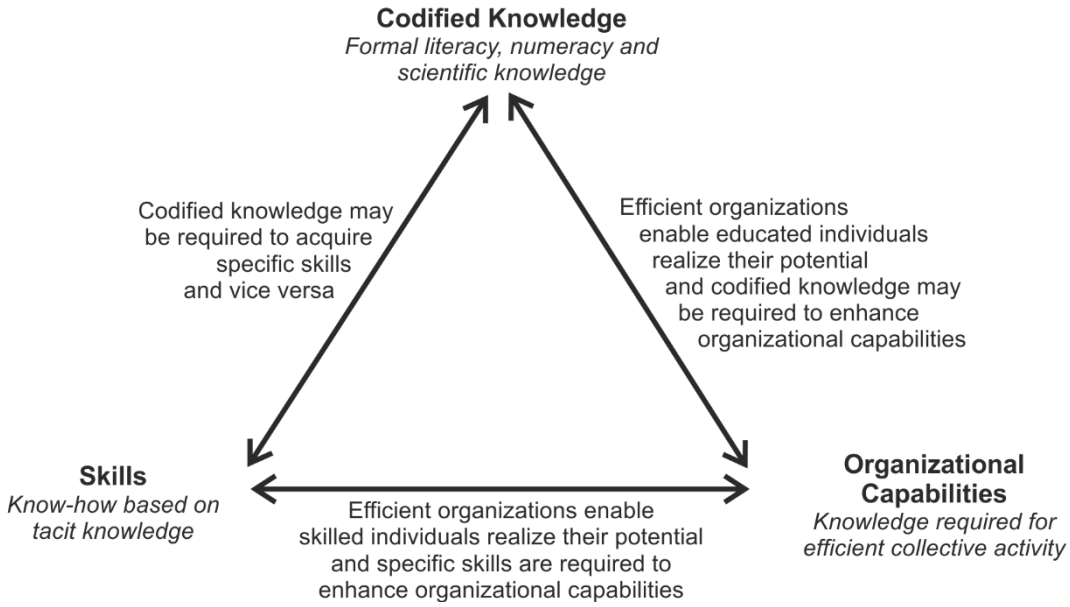

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Figure 1 Types of knowledge relevant for competitiveness

The interdependence of our three types of knowledge is summarized in Figure 1. Some types of codified knowledge can assist or may be essential for the acquisition of some skills, and also for enhancing organizational capabilities. Similarly, skills like the knowledge of how to operate particular software programmes or operate mechanical, chemical or electronic processes may be a prerequisite for acquiring further codified knowledge and some skills may be a prerequisite for engaging in collective learning to enhance organizational capabilities. Finally, the knowledge of how to operate in organizations with high levels of organizational capability can be a prerequisite for realizing the potential of many types of formal education and to realize the full potential of skills like the know-how of operating particular types of machinery. Developments in one type of knowledge can also spur developments in other types in a dynamic way. For instance, the application of know-how in the workplace to engage in process innovations can identify knowledge constraints that drive research that generates codified knowledge that in turn helps to overcome these constraints.

3. Competitiveness and types of organizational capabilities

The insight that entrepreneurs and firms play a critical role in creating competitive advantage has its roots in several important strands of economic theory. However, much of this theory emerged to address advanced country questions about the capabilities required to enhance competitiveness in innovative ways. This understanding is very important, but needs to be substantially modified to incorporate the typical developing country problem of *acquiring* competitiveness in known and quite basic technologies. In Schumpeter's (1934) theory of creative destruction, entrepreneurs drive *innovation* by looking for 'new combinations', creating new products that allow them to earn temporary monopoly profits. While Schumpeter focused on the role of entrepreneurs, the internal organizational capability of firms to drive growth was the subject of Edith Penrose's 1959 book on the theory of growth of the firm (Penrose 2009). In this seminal work, Penrose argued that the *growth* of firms was driven by 'managerial resources'.

Firms grow when they have unused managerial resources with the knowledge and capacity to organize new projects. This enables the firm to drive growth by drawing on and extending their knowledge of processes. The Penrosian analysis highlights the specificity of these capabilities. The knowledge of managers based on their experiences is hard to transmit and cannot be bought unless managers themselves move. In other words, organizational knowledge, in this case focusing on the knowledge of management, is tacit and specific to the firm. Both Schumpeter and Penrose in different ways overturned the standard economics treatment of the firm as a black box that responds to market signals. Instead they shifted the analytical focus to internal entrepreneurial and managerial capabilities as drivers of organizational evolution and product innovation. For both, growth and innovation were driven by entrepreneurs seeking to enhance their competitiveness by differentiating their products and services from others, thereby earning above-normal profits.

Drawing on the work of Schumpeter and Penrose, a literature on the dynamic capabilities of firms developed to analyse the organizational capabilities required by firms to maintain and *extend* their competitive advantage. These dynamic capabilities are required to be able to respond to market, technological and environmental changes and opportunities and to meet customer requirements in new ways, allowing these firms to earn rents (Teece and Pisano 1994; Teece, et al. 1997; Eisenhardt and Martin 2000; Zollo and Winter 2002; Cordes-Berszinn 2013). Research on dynamic capabilities has tried to identify patterns in the organizational practices of successful firms that allow them to experiment, adapt and learn from their experiences, as this is essential to drive organizational and technical innovations to maintain or extend competitive advantage. A limitation of these approaches from our perspective is that their subjects are the most dynamic firms in advanced countries. As a result the use of the term organizational capabilities in this literature seems to suggest that it is the capability to organize technical and organizational change. This can be confusing but the confusion is easy to address. Organizing production competitively with given technology is clearly an organizational capability that is critically important and missing in many sectors in many developing countries. Equally the routines and capabilities that can further modify these organizational and productive structures to achieve further improvements in competitiveness are second-order organizational capabilities, of great significance in advanced countries. For a more general understanding of organizational capabilities we need to incorporate these differences and extend these insights in a number of ways.

First, we need to recognize that the dynamic capabilities required for innovation are quite different from the 'basic' organizational capabilities necessary for operating firms in competitive markets with known technologies. For firms to develop *dynamic* capabilities that allow them to drive Schumpeterian or Penrosian growth and earn above-normal profits, they must already have high levels of basic organizational capabilities so that the basic tasks of effectively organizing teamwork already exist. For much of the world (including parts of advanced countries that have deindustrialized) the more relevant organizational challenge is to create firms with *basic* organizational capabilities, which can operate in competitive markets and make *normal* profits using known technologies. This is mainly about absorbing known organizational routines from competitive firms elsewhere and adapting them to local conditions, hierarchies, and governance conditions. It turns out that this is much more difficult than is often assumed. Innovating firms earning Schumpeterian rents are unlikely to spontaneously emerge in a context where normal-profit firms do not exist. They are more likely to

evolve from or be spun out of, or be created by entrepreneurs and managers who can draw on teams with the experience of working in competitive organizations operating in less innovative segments of the market. The challenge of creating firms with basic organizational capabilities is therefore different from that of developing dynamic capabilities but may be no less difficult. This challenge has been the subject of the developmental state literature on learning and catching up (Amsden 1989). But even in this literature the complexities of acquiring basic organizational capabilities have not been adequately discussed. In contrast, the Schumpeterian and dynamic capabilities literature focuses on advanced countries where the primary challenge is to drive innovation. The two strands of literature are related, and can benefit greatly from cross-fertilization.

A second feature of the advanced country literature on organizational capabilities is that it has generally given inadequate attention to the problem of conflicts and free-riding within the firm. These have, of course, been the subject of an extensive institutional economics literature (Alchian and Demsetz 1972; Jensen and Meckling 1976; Grossman and Hart 1986; Hart 1988; Hart and Moore 1990). The problem of responding to free-riding and rule violations within firms is a necessary condition of enhancing organizational capabilities such that a higher joint output can be achieved. Efficient routines for enhancing the coordination and efficiency of collective work may not work unless we also look at possible incentives for internal rule violations and free-riding behaviour and how these can be organizationally countered in specific contexts. In advanced countries basic organizational capabilities are widely available, and many firms already exist which have successfully solved these problems. The dynamic capabilities literature therefore does not give much attention to the problem of enforcing the adherence to internal routines. It is more concerned with the identification of more effective routines assuming they will be enforceable.

However, when countries are trying to develop basic organizational capabilities, the internal adherence to formal organizational structures is weak and has to be directly addressed in the organizational design of firms. It turns out that differences in social and political conditions can have a significant effect on the types of organizations that appear to be effective in achieving internal control and efficiency (Whitley 1992). For instance, in some countries small family firms dominate at early stages of development because larger firms are unable to deal with free-riding and conflicts using formal organizational structures. Other countries can make the transition to larger formal firms at an earlier stage. The critical questions of controlling free riding and conflicts are particularly important if public policy is being used to assist the development of organizational capabilities of any sort, because free-riding can also lead to low levels of learning effort that can easily derail policy and result in wasted resources. I will draw on these different insights to develop a more general analysis of organizational capabilities and policy challenges, with a particular focus on developing countries attempting to achieve structural transformation.

A general analysis of organizational capabilities therefore has to distinguish between different types of organizations and the capabilities they have to acquire to become competitive. The production of even the simplest products in firms exposed to international competition can require fairly complex organizational capabilities that I will describe as *basic.* These firms have to achieve these capabilities just to generate ‘normal’ profits with known technologies in competitive markets. Firms engaged in

garments, textiles, footwear and other types of normal-profit productive activities are in this category. Remarkably, for most of the world, there are an inadequate number of firms with these basic organizational capabilities, so the discussion of any more sophisticated capabilities is premature in most cases.

At the other end of the scale, we have organizations that can engage in innovative activities to continuously upgrade their existing technical and organizational capabilities. In other words, they have the capabilities to change their capabilities. This allows them to provide a stream of new products and services to earn above-normal profits by continuously differentiating their products from others and creating oligopolistic markets for themselves. As the Schumpeterian or Penrosian analysis shows, this requires organizational capabilities which can be described as *dynamic*. These involve organizational structures and processes, with associated routines, that allow the firm to innovate new products and processes and drive internal organizational changes to deliver innovative products. Firms innovating new types of electric cars, semiconductors or batteries would be examples of contemporary firms in this segment.

Finally, it is useful to distinguish an intermediate type of firm that is not necessarily engaging in significant product innovation but is operating in sectors where ongoing technical change is happening in lead countries and these firms therefore have to continuously imitate and adapt to maintain their competitiveness. They are usually suppliers or assemblers in developing countries for lead companies that have dynamic capabilities, usually located in advanced countries. Some of these intermediate capability companies may also be engaged in process innovations of their own. These firms require *intermediate* levels of organizational capabilities, somewhere in between basic and dynamic. They operate in sectors like automobile or electronics components and assembly in developing countries where entirely new products are not being innovated by these firms, but to remain as suppliers to or assemblers for dynamic lead companies that are innovating, they have to continuously upgrade their own manufacturing processes. These firms therefore have to keep abreast of technical and organizational changes happening elsewhere to maintain their competitiveness in supplying or assembling increasingly sophisticated or higher quality products. These firms are primarily imitating and catching up with organizational and technical capabilities elsewhere, as basic firms are, but here the imitation is of a moving target, or at least, a target that is moving much faster than say in garments or footwear. They may sometimes be making higher than normal profits but they face intense competition and may often be only earning normal profits.

Basic, intermediate and dynamic organizational capabilities are therefore segments along a continuum, but the distinctions between them are important for policy. First, the feasibility of a capability development strategy depends on initial conditions. A strategy can fail if it tries to develop organizations requiring dynamic or intermediate capabilities in contexts where basic capabilities are missing. Failure can include cases of ‘success’ where a small island of firms are created with high organizational capabilities but which do not result in imitation or clustering because the average organizational capability of the society is too far removed. This does not mean that the way to develop an automobile industry is to first develop a garments industry. Firms making garments do not necessarily evolve into making automobiles. But it does mean that if a region does not yet have the organizational capabilities to develop a garments industry, attempting to develop clusters of automobile components producers is likely

to be very difficult on any scale. Secondly, the emergence of a large number of lower-technology firms is a good way of ensuring that growth is inclusive and creates many jobs. These firms can be component suppliers who create jobs in developing countries even if the value added and profits are higher in the lead dynamic firms that are engaged in design and product development in advanced countries. If we see development as the organizational transformation of a society, the emergence of large numbers of basic and intermediate capability firms is the most effective way of moving large numbers of workers from agriculture and informal sectors into organized modern factory production. Finally, as societies develop more sophisticated intermediate-capability firms, conditions are created for the emergence of firms with dynamic capabilities. These firms can drive innovation, but their developmental effects are greatest if basic and intermediate-capability component suppliers and subcontractors exist to link with them in their value chains to create many more jobs and entrepreneurial opportunities. This is the desirable path of industrialization, rather than one where a few high-capability firms exist as islands with few employment spillovers.

How important are organizational capabilities for productivity? It turns out that even basic organizational routines have an outsized impact on the productivity of a firm. For instance, if a machine breaks down and a solution is not rapidly found, this can have cascading effects throughout the production line. The rapid resolution of this problem requires an organizational response that is likely to involve others beyond the workers operating the machine. Effective routines and responses to different types of breakdowns can have a large impact on overall productivity. Similarly, without routines for maintaining quality control there may be high levels of output rejection that affect measures of aggregate productivity. Poor organization of inventories, poor coordination across production lines, the failure to identify and resolve bottlenecks, the failure to identify absentees or those off sick and to find immediate replacements, or poor order management are all examples of organizational failures that can each result in production slowdowns, work stoppages and low throughput rates. Organizations also need to find combinations of carrot and stick solutions to free riding behaviour and internal conflicts. This is essential not only to maintain collective output, but also to prevent low morale leading to more free riding. A firm that is poorly organized along any of these dimensions can register significantly lower productivity even with very simple technologies and it can fail to become competitive regardless of the skills and knowledge of individual workers.

The staggering scale of productivity differences across firms producing the same products with the same machinery and comparable human capital can be seen in the example of the Indian textile industry in Clark and Wolcott (2012). Huge productivity differentials between India and other countries meant India could not develop a cotton textile industry for a long time despite lower wages compared to competitors. However, Clark and Wolcott's explanation of this productivity gap is not convincing. They argue that Indian *cultural attitudes* sustained poor organizational behaviour. A more plausible explanation is that India failed to develop *organizational capabilities* in textile firms for a long time. In the late nineteenth century British India had no public policies to support the acquisition of organizational capabilities. Despite using exactly the same machines as global textile leaders in England and elsewhere, and despite the sector requiring relatively low labour skills, Indian productivity was so low that lower Indian wages did not compensate and the sector remained uncompetitive. Profitability was very low and disappeared entirely when Japan entered the cotton textile market in 1924

(Clark and Wolcott 2012: Table 4). More than fifty years later, and despite significant post-colonial policies for supporting infant industries, the relative productivity problem had only marginally improved. Some Indian textile production became profitable, but in 1978 output per worker-hour in cotton spinning in the US was still 7.4 *times* higher than in India using *the same machinery*. What could possibly explain productivity differentials of this magnitude? Even if American workers had higher levels of formal education, this cannot plausibly explain why using the same relatively simple machinery that does not require high levels of codified knowledge or skills, they were still producing 640% more output every hour.

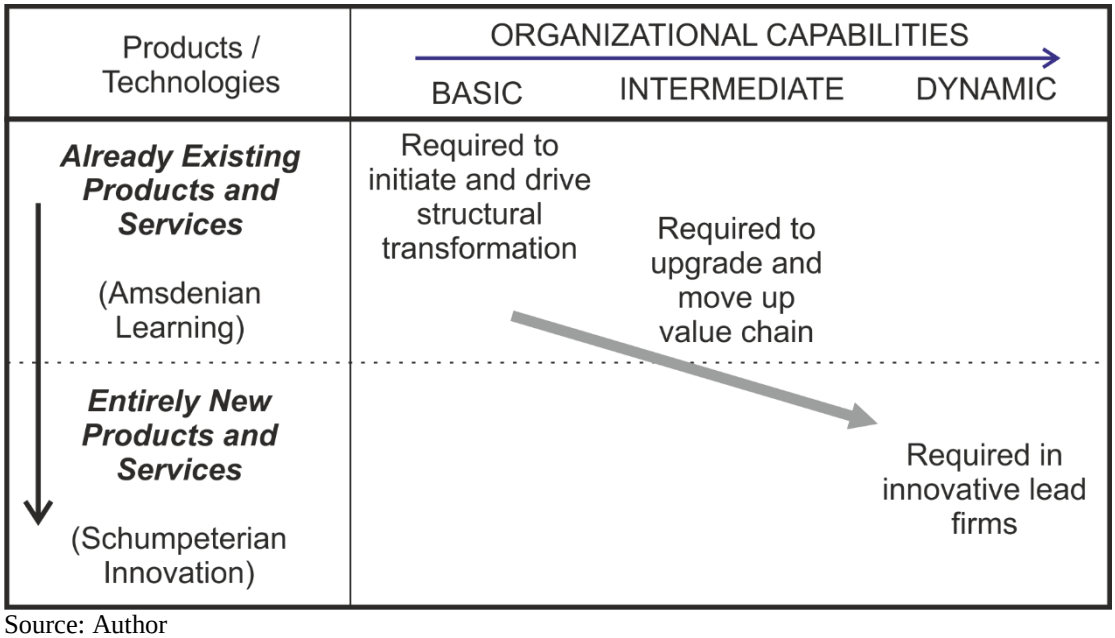
Clark and Wolcott's own explanation goes partly in the right direction but is ultimately not satisfactory. Their analysis, in the institutional economics tradition, argues that modern factory production creates a non-separable output that can result in free-riding behaviour (Alchian and Demsetz 1972). Non-separability means that the contribution of an individual in an organization depends on what others are doing. The implication is that if an individual decides to free ride by working a little less it is not possible to detect this by looking at the output of the individual because the output is a joint product. For the output of the organization to remain high, the organization has to ensure that individuals do not free ride. This insight focuses our attention on the organizational design that can counter free-riding behaviour. Like Alchian and Demsetz, Clark and Wolcott argue that free riding and opportunistic behaviour are the major causes of organizational failure, resulting in high levels of shirking and a collapse of the collective output. In my view, poor organizational routines can result in low collective productivity for a number of other reasons, such as the failure to correct breakdowns rapidly or to maintain quality control, which are not necessarily connected to free-riding behaviour. But this is not my major criticism of Clark and Wolcott's explanation of low productivity in the Indian textile industry. The real problem is that they attribute opportunistic behaviour within the firm (which is surely part of the problem of low organizational capability) to the absence of a 'gift-giving culture' in countries like India. They argue that cooperative productive behaviour is only sustainable in cultures where individuals are generous in giving without expecting. This enables employers and workers to trust each other and makes the monitoring of individuals in the organization cheaper and more effective. This explanation makes organizational capability entirely dependent on a culture of gift-giving which is not plausible. Organizational capabilities can be acquired, and indeed India managed to improve these capabilities to develop a competitive textile industry despite persistent productivity gaps with competitor countries.

Clark and Wolcott do make it clear that this cultural problem is not in any way innate in genetics or deeply held group attitudes, but is rather a description of a behavioural equilibrium. When a critical minimum number of people in a society become generous, it can become rational for most individuals to become generous and vice versa. Indeed, they point out that when Indian workers migrate to the US their productivity immediately improves because they can work in firms with greater trust and their own behaviour changes. In fact, their major policy recommendation is to encourage migration within and between countries. Even if we accept for a moment that opportunism and free riding are the primary causes of organizational failure, and that there are different levels of trust in societies, Clark and Wolcott effectively rule out the possibility that organizational design and learning is one way in which cooperative behaviour can be inculcated within organizations and ultimately societies. In other

words, they ignore the possibility that designing organizations and improving their internal routines is a way of changing 'culture' within the organization, defined as a behavioural equilibrium. However, the evidence across countries shows that organizational capabilities *can* be acquired, that behaviour within organizations can change through the learning of new routines with appropriate carrots and sticks, and that this is a more effective solution to low productivity than migration. The dramatic take-off in the garments industry in Bangladesh in the late 1970s that we look at later was not preceded by any change in the national culture of trust, or even by any significant skills programmes for workers. It was entirely driven by the acquisition of critical organizational capabilities.

4. Learning organizational capabilities

The policy challenges of developing organizational capabilities in developing countries has been an important question in the developmental literature. In her seminal work, Alice Amsden (1989) questioned the adequacy of the Schumpeterian model of innovation for developing countries and argued that for them growth was based on 'learning', the process through which follower countries adopt technical and organizational capabilities from more advanced ones. The important point that Amsden makes is that while there are significant differences in the technical and organizational requirements of different technologies, by and large, developing countries are learning to produce products that have already been produced somewhere else. Innovation only begins when firms have the organizational and technical capabilities to innovate entirely new products. Amsden was directing attention to what I have called basic and intermediate organizational capabilities, which are the critical organizational capabilities for developing countries.



Source: Author

Figure 2 Organizational Capabilities, Learning and Innovation

Figure 2 combines Amsden's insights on learning and innovation with our earlier discussion. The challenge for developing countries is to move along the first row of Figure 2, from the creation of a broad base of competitive lower-technology firms to a growing number of intermediate higher-technology firms. For most developing countries, the creation of a broad base of firms with basic organizational capabilities is the most important challenge. A desirable trajectory of organizational capability development and industrial upgrading is shown by the grey arrow in Figure 2 with an integrated modern productive sector gradually deepening (Khan 2015). Truly innovating firms only emerge when some of the more advanced higher-technology firms achieve sufficient technical and dynamic organizational capabilities to drive their own innovation.

The number of firms that can drive innovation in a country is likely to be low till the country as a whole has advanced to the point where the social infrastructure supports significant expenditures on formal education and on research. Innovation by dynamic firms can also help other types of firms by creating demand for new components produced by lower-technology intermediate and basic capability firms. Organizational learning, as shown in Figure 2 is therefore an ongoing process. The most appropriate capability-development strategy for a country will depend on its initial mix of capabilities, but in most developing countries support for the development of basic organizational capabilities is likely to be an important part of the mix. The less developed a country, the more important it is to raise the average level of social organization by supporting the development of a broad base of firms with basic, and eventually, intermediate organizational capabilities.

Public support for capability development can be wasted if firms fail to achieve improvements in productivity. This is a variant of a free-riding problem where organizations receiving support to develop productivity waste it or divert it to other uses. The importance of disciplining is not disputed but what it means is often not clear. There are some broad answers in the development literature, but the problem is that the design of policy, and the governance of disciplining, depends on the problems that have to be addressed and the relative power of firms and government agencies that determine the feasibility of different strategies. States are not uniformly 'strong' or 'weak'. Apparently weak states may be able to carry out some types of disciplining if policies are designed in ways that take the distribution of power into account. Amsden's insight was to remind us that the market cannot discipline firms receiving subsidies (because firms receiving subsidies are by definition insulated from the market), so the state has to ensure that firms failing to raise their capabilities should at some point lose their subsidies (Amsden 1989: 3-20). South Korea and Taiwan in East Asia achieved success with their industrial policies because their states could provide *ex ante* support to firms with credible disciplining that resulted in a withdrawal of support if performance was poor (Amsden 1989; Wade 1990; Lall 1992, 2000b, 2003). Policy support came in a variety of forms including tariffs, export subsidies and low interest loans. Performance was observed *ex post* and compulsions for rapid learning of organizational and technical capabilities were created by signalling that support would be withdrawn from poorly performing firms or sectors.

However, while this worked in East Asia, the developmental state literature did not provide a full explanation of *why* it worked and what the policy lessons are for countries

where the same policies worked less well. In Amsden's analysis, productivity growth is driven by output growth as in the Kaldor-Verdoorn model (Amsden 1989: 109-12). In her analysis, the disciplining of subsidies in South Korea ensured that business organizations delivered growth, and this growth then drove productivity. The big business groups who were supported became competitive as a result of productivity growth and had little reason to collude or seek to protect their subsidies. Competition and competitiveness were therefore consequences of growth (Amsden 1989: 150). If this mechanism was generally effective, the role of disciplining would only be to ensure that supported firms actually delivered output growth. Productivity growth would automatically follow through learning-by-doing and would lead to the achievement of competitiveness. The expectation that output growth results in productivity growth can be justified if the most relevant knowledge gap was missing technical know-how, and Amsden suggests this was indeed the case. If so, output growth would ensure that managers, supervisors and workers got the opportunity to work on production lines and their learning-by-doing would lead to productivity growth.

However, if the missing knowledge was of organizational capabilities the collective learning process is much more complex even though the productivity gain here may be huge and decisive. The monitoring and disciplining required to ensure a high level of effort in an exercise of continuous organizational experimentation and collective learning can be complex. Without effective strategies for ensuring high levels of effort in improving organizational capabilities, subsidized firms can in principle deliver output growth without achieving any improvement in their organizational capabilities and therefore any significant productivity growth. Indeed this is exactly what happened in countries like India and Pakistan whose industrial policies supported growth in diversified business groups in the 1960s *and* generated high rates of output growth (including export growth in Pakistan), but with almost zero productivity growth (Ahluwalia 1991; Khan 1999). Most policy-supported firms and business groups never became competitive (Khan 1999, 2011, 2013b).

Disciplining firms to improve their own organizational capabilities may *appear* to be unnecessary since firms should benefit by improving these capabilities. This may be true if the firms receiving support believe they can achieve competitiveness relatively easily by simply producing more output or by improving their organizational routines in simple ways. Otherwise, putting a lot of effort into acquiring new organizational capabilities may not be the most rational strategy. The effort required can be very high if the initial productivity gap is significant. Internal conflicts have to be managed as hierarchies and responsibilities are restructured and new ways of working routinized. Compared to the cost, the prize may not necessarily be attractive, particularly if it means that the firm achieving competitiveness in this way is 'rewarded' by losing its policy support and having to fend for itself in a harsh global competitive environment. Without compulsion to do otherwise, the rational behaviour of individuals and managers within the firm may well be to 'satisfice', in the sense described by Herbert Simon (1956, 1983). The rational satisficing strategy may to keep producing with existing organizational structures and allocate effort to rent-seeking activities to protect their policy rents. As a result, if the penalties for non-performance are not significant or credible relative to the difficulty of the organizational learning, the likely outcome may be failure (Khan 2013a, 2013c).

The relatively simple disciplining strategy in East Asia with its focus on output and export targets achieved *both* a rapid acquisition of technical know-how *and* significant improvements in organizational capabilities because of exceptional conditions. Although Amsden's theoretical argument focuses on the learning of technical know-how, her detailed descriptions of learning in automobiles, shipbuilding and steel show that rapid improvements in productivity actually occurred through the implementation of new organizational routines (Amsden 1989: 175-80, 272, 80-6, 305-16). Comparing the organizational transformation in these South Korean companies with the relative organizational inertia in comparable Indian or Pakistani ones of the period leads us to ask why output-promoting strategies worked to induce organizational change in one case but not the others.

Two important and exceptional characteristics of East Asian states and societies provide at least a partial answer. First, in the 1960s East Asian countries were just as poor as South Asian ones but they had *relatively* higher initial levels of organizational capabilities in manufacturing and a supply of domestic entrepreneurs and managers with an understanding of the problems they had to solve. Japanese colonialism had introduced aggressive industrialization in both South Korea and Taiwan and local managers who worked in modern Japanese firms understood firm organization and its importance for efficiency. Secondly, the macro-level distribution of organizational and political power within these countries (their political settlements) allowed their states to provide and withdraw support from businesses (Khan 2009; Khan and Blankenburg 2009). This too was related to the nature of Japanese colonialism, which ruled in Korea and Taiwan with brute force, and made no use of clientelist political organizations that mediated social conflicts by distributing rents. In contrast, South Asia like much of the rest of the developing world, inherited powerful clientelist political organizations from British colonial times and these organizations could later be used by business organizations to protect their subsidies for a share of the rents.

Both these features played an important role in explaining why technical and organizational capabilities improved when support was linked to output performance in East Asia but not South Asia. South Korean managers knew that they did not have the political networks to bargain to maintain their levels of support or to block the withdrawal of support if their performance was poor. If subsidies could be withdrawn and if output growth had to be sustained without additional subsidies, the only option was to improve both technical *and* organizational capabilities. At the same time, managers also believed this was feasible and had some idea of what this entailed because they had worked in competitive Japanese organizations in the recent past.

In contrast, in countries where the initial organizational capabilities were low and political conditions were less fortuitous, support for output growth did not create strong pressures for productivity growth through the acquisition of difficult new organizational capabilities. Organizations with lower initial capabilities needed to put in much higher collective effort to achieve competitiveness and the effort required did not make sense given the relative ease with which subsidies could be protected through alliances with clientelist political organizations. The relevant learning gap could have been reduced with a better understanding of organizational capabilities and by supporting business organizations whose initial capabilities were closer to the competitive requirements for using particular technologies. At the same time, the political settlements in these countries made it unlikely that *ex ante* subsidies could be

easily withdrawn even if organizational failures were persistent. Other forms of providing support may have been much more effective, as we will see in the Bangladeshi garment industry example. Contrary to the East Asian experience, South Asian firms that were supported in similar ways in the 1960s achieved output growth, but productivity growth was low because they failed to achieve higher organizational capabilities and instead renegotiated levels of support, failed to repay banks and even evaded bankruptcy laws. A different design of policy instruments that took better account of initial conditions may have delivered better results. If skills were the only factor determining productivity, the output growth should have resulted in learning-by-doing and productivity growth in the way Amsden suggested. But once we understand the interdependence of different types of knowledge required for competitiveness, it becomes possible to explain the South Asian experience.

5. Evidence from the garments industry in Bangladesh

The poor performance of industrial policy strategies in Pakistan in the 1960s left the new state of Bangladesh that emerged in 1971, when East Pakistan became independent, in a very vulnerable position. Its manufacturing sector was small and not very competitive and the dominant jute industry was losing its global importance. However, out of the economic chaos, the garments and textiles industry emerged in the late 1970s and rapidly achieved global competitiveness. Within three decades it employed almost five million workers and contributed almost 80 percent of the country's export earnings. The growth of the labour-intensive sector also had a huge impact on poverty reduction as GDP growth rates crept up from around 5 percent a year in 2000 to around 6.5 percent in the 2010s.

The garments industry take-off in Bangladesh in the 1980s is usually attributed to low labour costs and the liberalization that began in the late 1970s. These factors, it is argued, helped the country benefit from the global opportunity in garments production. But many other countries with low labour costs and access to world markets did not succeed in the garments industry. The critical element in Bangladesh was a strategy for financing the transfer of organizational capabilities that created the right incentives and compulsions for a rapid acquisition of these capabilities by the emerging Bangladeshi industry. A critical component of this story was the Multi-Fibre Arrangement (MFA), which created potential rents for garments producers in less-developed countries *if they could produce garments of a competitive quality and at a competitive price within the additional margins allowed by the MFA.*

The MFA emerged in 1974 driven by US textile and garments interests. Its purpose was to protect the American garments and textile industry from competition from countries like Hong Kong, South Korea and Turkey that were more competitive than the USA in the sector. It imposed quotas on imports of garments from these countries to the USA, and as a concession, least developed countries (LDCs) were given quota free access to the American market. No LDC at that time had any capacity in competitive garments production, so this was a relatively safe compromise from the American perspective. The policy did however create potential quota rents for these less-developed countries, which they could capture if they managed to deliver garments of the appropriate quality at a price that was lower than the price in the protected American market. Once established exporters had filled their quotas, supplies in the US market dried up and the local price of garments rose to the level where local US producers could begin to supply.

This was the intention after all. The unintended consequence was that if LDC exporters could achieve quality exports at or below this internal American market price, they could earn a rent relative to the global competitive price. This was the quota rent.

This on its own would not have been sufficient because the low level of basic organizational capabilities in LDCs including Bangladesh meant that they could not produce quality garments even at the quota protected US market price and even with their very low wages. Here, the role of the Bangladesh government was important in backing a financial agreement that funded the acquisition of organizational capabilities and agreeing to fast-track critical regulatory changes. The financial agreement was between a Bangladeshi company, Desh, and a South Korean *chaebol*, Daewoo, where the acquisition of organizational capabilities was financed without *ex ante* subsidies being given to the Bangladeshi company.

The terms of the deal were that Desh would invest in the machinery and labour required for setting up a large-scale garments operation in Bangladesh. Daewoo undertook to invest in the organizational learning process by hosting around 130 Bangladeshi managers and supervisory staff at its factory in Busan to learn the relevant organizational and technical know-how on site. Daewoo's reward would be an 8% royalty on the eventual sales of Desh. In terms of the margins typical in the industry this was a huge return to Daewoo, and it was only possible because of the expectation that Desh would capture an MFA quota rent. The deal effectively passed the potential quota rents to Daewoo as *ex post* rents rewarding their effort and investments in the transfer of organizational capabilities to the Bangladeshi side. This *ex post* rent could only be accessed by Daewoo if Desh succeeded in exporting to the American market.

The results were spectacular. The organizational and technical learning that was planned to take more than two years in Busan was finished in less than one. The incentives on both sides were to get the training and learning done as soon as possible so both sides could start making money. The managers trained in Busan came back to Bangladesh with a good initial knowledge of the organizational outcomes required and began to adapt South Korean organizational routines to Bangladeshi conditions. Desh exports grew at close to 100% a year for the next few years. Of the 130 mid-level managers who went to Busan, 115 set up their own factories within two years. Desh did not prevent its managers setting up their own firms for two reasons, apart from the fact that it would have been practically difficult to prevent them doing so. First, once the competitive organizational structure of the firm was established, it did not matter if one or two managers occasionally left. Secondly, it also became obvious that as more garments factories were set up, more foreign buyers came to the country. Imitation and clustering were therefore advantageous to first movers and they made no attempt to prevent imitation, contrary to the expectations of the Hausmann and Rodrik discovery model (Hausmann and Rodrik 2003; Khan 2013a).

Imitation was rapid because the first movers adopted efficient organizational routines and adapted them to Bangladeshi conditions. The organizational capabilities required to become competitive could be acquired by imitators at relatively low levels of experimentation and effort because the organizational forms were not too far distant from the initial capabilities of many Bangladeshi entrepreneurs and managers. Nevertheless, without the initial learning and demonstration of effective organizational structures by the first movers, it is unlikely that the organizational capabilities would

have spontaneously emerged, and indeed garments industries did not spontaneously emerge in other LDCs. The additional productivity growth that was subsequently achieved by further experimentation and refinement of organizational structures and routines and skills development through learning-by-doing was sufficient to make Bangladesh non-reliant on MFA within a few years.

The Bangladeshi garments industry thus became globally competitive by adopting strategies for acquiring basic organizational capabilities of quality control, inventory management and cost management. A substantial amount of growth could then be achieved through horizontal imitation. This horizontal growth is still continuing four decades later. However, as parts of the Bangladesh garments and textile industry began to move up the value chain, the need for *intermediate* levels of organizational capabilities and skills emerged, to operate more complex machinery, maintain higher levels of quality control and manage more complex production processes. Employers and policy-makers observed the difficulty of raising productivity and attributed this quite accurately to knowledge gaps constraining the broad-based upgrading of the industry. However, the nature of the knowledge gaps and their interdependent nature was once again not fully appreciated. Instead, the conventional wisdom is that improving technical and vocational education and training (TVET), together with improvements in formal education would help Bangladesh (and countries like it) upgrade their emerging manufacturing sectors (ADB 2015a, 2015b).

Surveys of employers appear to support this interpretation since employers themselves are typically unaware of their own missing organizational capabilities. They are most likely to attribute their low productivity to knowledge gaps in their workforce. An ILO survey on skills gaps in Bangladeshi firms found that the three most important gaps reported by firms were 'basic knowledge' reported 46 times in the sample, 'job skills' reported 29 times and the absence of 'industrial behaviour' reported 44 times (Rahman, et al. 2012: Table 10.4.8). The first two gaps clearly correspond to gaps in codified knowledge and skills. The third gap, a mysterious absence of industrial behaviour that Bangladeshi employers attributed to their workers, is reminiscent of the behavioural shortcomings of Indian workers identified by Clark and Wolcott (2012). This behavioural deficiency is more likely to be a reflection of the low organizational capabilities of the firms themselves. The interdependence problem means that the provision of education and skills without closing the organizational capability gap is likely to deliver poor returns. Indeed, despite massive investments in TVET and secondary education, the movement up the value chain has been very slow in the Bangladeshi garments industry.

Nevertheless, there are examples of successful upgrading to intermediate levels in Bangladesh. These examples demonstrate the relevance of organizational learning for achieving further productivity improvements as the country attempts to move from basic to intermediate levels of organizational capabilities. The German Investment and Development Corporation, DEG, supported and later evaluated an internal skills upgrading programme of a Bangladeshi garments manufacturer, JMS Holdings Ltd. (DEG 2016). JMS is one of the larger garments groups in Bangladesh, with a total employment of around 6300 workers, around 70% of whom are women. Like most Bangladeshi garments manufacturers, the group had basic organizational capabilities and was competitive in relatively low-end products with low labour productivity. Between 2012 and 2014 it engaged in a significant internal upgrading and capacity

expansion plan, partially financed by DEG. The programme engaged an international textile consulting company, Gherzi, who had experience in the Turkish textile industry, to assist with the upgrading. The training involved a conventional TVET operation that assisted skills development, but also and critically, an organizational restructuring of production lines. The total investment was USD 1.5 million, of which USD 820,000 was invested in skills upgrading.

The results were 'tremendously positive', with productivity going up by 37% and output by 74% in two years. The quality of products improved and input wastage declined by more than 80% just between 2014 and 2015. Profits increased by more than USD 1 million since 2012. According to the consultants from Gherzi, only around three-tenths of the total productivity growth of 37% could be attributed to the TVET or skills training part of the programme. The other seven-tenths were due to the 'optimization of the production layout' and new equipment. The study concluded that "the most important productivity lever is the optimization of production layout, followed by the training of employees, and lastly the usage of new machines" (DEG 2016: 7). The contribution of new machinery was therefore even less than the three-tenths attributed to skills training implying that *the biggest effect, possibly around half of the total productivity growth was due to better production organization.* The improved organization and management of a more sophisticated production process is an improvement in organizational capabilities towards intermediate levels. This allowed JMS to engage in higher-valued garments production that responded to ongoing improvements in design, quality control and productivity, thereby enhancing local value added and profitability.

The JMS upgrading experience again underlines the interdependence of skills training and the acquisition of organizational capabilities. Moreover, once again this was achieved by incentivizing an external company to transfer organizational capabilities to a Bangladeshi company rather than providing *ex ante* subsidies to the Bangladeshi company to raise its organizational capabilities in its own way. These examples underline the importance of policies addressing specific combinations of knowledge gaps. They also suggest that policies supporting learning will only work if they induce appropriately high levels of learning effort. In countries where political settlements do not allow credible disciplining of firms that are given *ex ante* subsidies for learning, subsidy policies are not likely to be effective in inducing improvements in organizational capabilities. But this is not an argument for leaving things to the market. Without the strategy of re-allocating MFA rents to Daewoo in the initial Desh-Daewoo example, or the low interest loans provided by the DEG in the JMS example, the relevant organizational capabilities may not have been spontaneously acquired. There is therefore a significant potential role for governments, but its role is to provide policy support that mimics the incentive structures in the successful examples discussed above.

The interdependence of knowledge gaps can help to explain why international evaluations of skills training programmes find that they generally have a low impact on productivity. A World Bank review of a large number of evaluations of training programmes across both advanced and developing countries concluded that these programmes generally did *not* have a high impact on wages (a measure of increased productivity) though there was some impact on employment (Betcherman, et al. 2004: 53). The performance of training programmes was even poorer in developing countries.

The generally poor results reported could be due to two sorts of reasons. It could be that the delivery of the technical know-how was itself weak. But more plausibly, given the poor performance across so many countries and programmes, it is more plausible that the complementary organizational capabilities required for utilizing these skills effectively and allowing productivity to increase were missing.

Estimates of the returns to codified education in Bangladesh and other developing countries also show low rates of return. The World Bank estimates that returns to formal education in Bangladesh are 3.6% for primary, 6% for secondary and 9.2% for undergraduate education, reflecting the relatively low improvements in incomes as a result of education (Dohmen 2009: 15). These figures seem to be at odds with the widely reported shortage of college-educated workers in firms for supervisory and other roles and the outmigration of individuals with formal knowledge to more advanced countries where they earn considerably higher returns. But the figures are easily explicable if we remember that without simultaneous investments in organizational capabilities, the potential of formal education cannot be realized within Bangladesh. In other words, the returns to both skills training and formal education may critically depend on a *simultaneous* upgrading of organizational capabilities. Ironically, this interdependence is not fully recognized even in countries like Bangladesh which have achieved some successes in developing basic and some intermediate levels of organizational capabilities.

Finally, our analysis can shed light on why it is so difficult to raise the quality of schools, colleges and skills training institutes in countries where organizational capabilities are low. High capability firms are critically important not only for creating job opportunities for skilled and educated workers, but also because managers in well-working organizations are able to discriminate between well-trained and badly-trained applicants. Managers in well-working organizations know what type of person they are looking for in a particular task and can usually quickly identify when that person's training is inadequate. However, when the overall productivity of an organization is low because of poor organizational capability, an individual skilled worker is unlikely to have any impact on productivity or profitability. These firms therefore find it hard to discriminate a properly educated or trained worker from others, and are likely to pay all workers a low salary or wage. This can destroy incentives for training providers of all types to maintain quality since there is no premium for providing quality education and skills. The result can be a vicious cycle where poor organizational capabilities result in low standards of formal education and skills training that in turn make it difficult to raise organizational capabilities.

6. Conclusion

Structural transformation raises significant challenges for investments in knowledge. The challenges are also different across countries with different initial conditions. The argument in this paper is that it is important for policy to recognize and respond to the interdependence of formal knowledge, skills and organizational capabilities. Secondly, while the importance of organizational capabilities is recognized in the advanced country literature, the importance of basic and intermediate organizational capabilities has often been downplayed in favour of the analysis of dynamic organizational capabilities. This too is a mistake, not only in the context of developing countries, but also in the context of regeneration challenges in depressed regions and sectors of

advanced countries. The more underdeveloped the initial organizational capabilities and the more difficult it is to discipline firms given the characteristics of the political settlement, the less likely is it that generalized policies of support for firms will be effective in achieving competitiveness. Yet, the experience of successful improvements in organizational capabilities in the garments industry in Bangladesh, a least developed country with a clientelist political settlement, shows that appropriately designed support policies can work in developing skills and organizational capabilities to create competitive industries.

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